

**DISK DRIVE MODIFYING A ROTATIONAL POSITION OPTIMIZATION  
ALGORITHM BASED ON MOTOR CAPABILITY OF A VCM**

**ABSTRACT OF THE DISCLOSURE**

A disk drive is disclosed comprising a disk, a head, and a voice coil motor (VCM) for actuating the head over the disk. The disk drive executes a rotational position optimization (RPO) algorithm to select a next command to execute relative to an estimated seek time computed for each command in a command queue. A motor capability of the VCM is estimated and used to modify the estimated seek time for each command in the command queue to thereby optimize the RPO algorithm.